

Tennessee Deaths 2003

March 2005

The Tennessee Department of Health

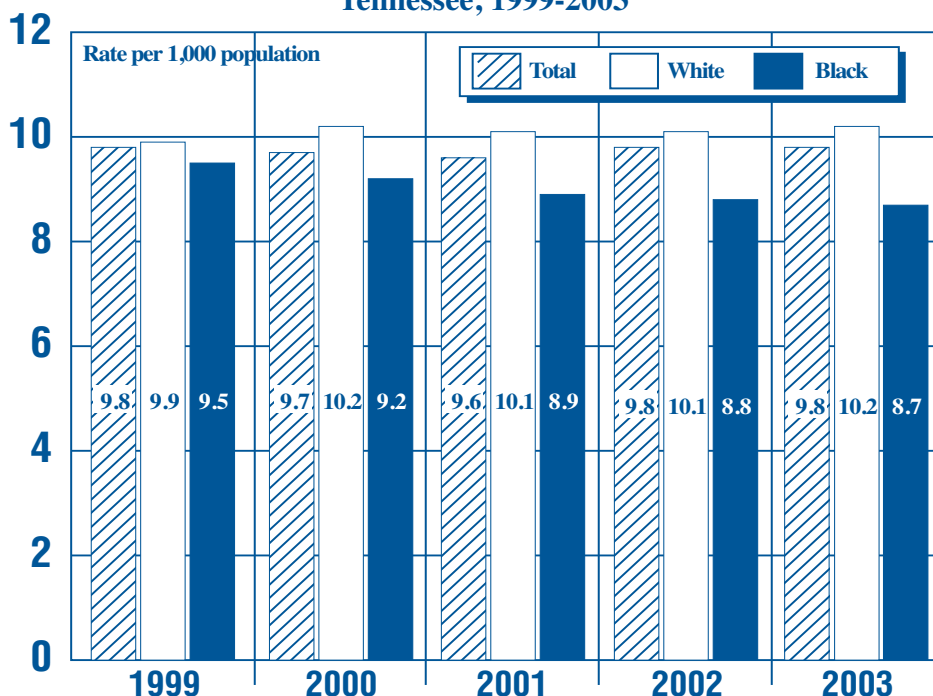
Tennessee's death data provides information on 2003 final mortality data for state residents. Resident data includes events which occurred to residents of the state irrespective of where the events took place. Certificates filed with the Office of Vital Records supplied the data for this report.

Over the past century, improvements in scientific technology and research have created a better quality of life. Tennesseans now have the potential for increased longevity of life and reductions in illnesses.

The overall death rate remained fairly steady from 1999 to 2003, as the total population increased 6.5 percent. While the mortality rate for whites remained fairly constant over the five-year period, the rate for blacks decreased 8.4 percent from 9.5 per 1,000 population to 8.7 from 1999 to 2003.

Age-specific death rates for 2003 show the total rates increasing over three times for the age group 45-64 to the group 65-74. Rates for blacks were higher than those for whites, except for the population group 85 years and older where the white rate was higher than both the total and black rate. The black infant death rate of 18.0 was 2.6 times higher than the white rate of 7.0 per 1,000 births.

**Death Rates by Race, Resident Data
Tennessee, 1999-2003**



Population estimates used to calculate rates were revised August 2003. (See Note on last page)

**Number of Deaths by Age and Race, with Rates per 1,000
Population, Resident Data, Tennessee, 2003**

Age Groups	Total	Rate	White	Rate	Black	Rate
Total	57,220	9.8	48,516	10.2	8,503	8.7
Under 1*	728	9.2	424	7.0	291	18.0
1-4 years	100	0.3	64	0.3	33	0.5
5-14 years	166	0.2	118	0.2	45	0.3
15-24 years	783	1.0	598	1.0	176	1.1
25-44 years	3,636	2.1	2,735	2.0	867	3.0
45-64 years	11,698	8.2	9,361	7.7	2,288	11.8
65-74 years	10,396	26.5	8,822	25.4	1,534	36.5
75-84 years	15,543	63.4	13,749	62.5	1,765	72.9
85+ years	14,166	161.5	12,642	163.1	1,504	151.5

*Rate for deaths under age one are per 1,000 live births. All other age groups are per 1,000 population. Total includes deaths of other races and deaths with race not stated.

Tennessee's ten leading causes of death accounted for 45,010 or 78.7 percent of the total 57,220 deaths in 2003. Diseases of heart and malignant neoplasms combined, accounted for 28,486 or 49.8 percent of the total deaths. The codes used for cause of death were from the Tenth Revision International Classification of Diseases.

Notes: Age-adjustment is a technique that removes the effects that differences in age distributions have on mortality rates for two or more groups being compared. For 2003, the standard population used in the direct method calculations was revised to the 2000 United States estimated population, as recommended by the National Center for Health Statistics. These revised age-adjusted figures may result in rates that differ from previous years.

Leading Causes of Death (ICD-10 Codes) with Rates and Age-Adjusted Rates per 100,000 Population Resident Data, Tennessee, 2003

Cause	Number	Rate	Age-Adjusted Rate
Total Deaths	57,220	979.8	984.6
1. Diseases of heart (I00-I09, I11, I13, I20-I51)	15,891	272.1	273.9
2. Malignant neoplasms (C00-C97)	12,595	215.7	213.0
3. Cerebrovascular diseases (I60-I69)	3,877	66.4	67.9
4. Chronic lower respiratory diseases (J40-J47)	3,066	52.5	52.7
5. Accidents (V01-X59, Y85-Y86)	2,990	51.2	51.3
Motor vehicle accidents (V02-V04, V09.0, V09.2, V12-V14, V19.0-V19.2, V19.4-V19.6, V20-V79, V80.3-V80.5, V81.0-V81.1, V82.0-V82.1, V83-V86, V87.0-V87.8, V88.0-V88.8, V89.0-V89.2)	1,298	22.2	22.1
6. Diabetes mellitus (E10-E14)	1,854	31.7	31.7
7. Influenza and pneumonia (J10-J18)	1,809	31.0	31.7
8. Alzheimer's disease (G30)	1,466	25.1	26.1
9. Intentional self-harm (suicide) (X60-X84, Y87.0)	760	13.0	12.8
10. Chronic liver disease and cirrhosis (K70, K73-K74)	702	12.0	11.6

Number of Infant and Neonatal Deaths by Race with Rates per 1,000 Live Births Resident Data, Tennessee, 2003

Infant Deaths	Number	Rate	Neonatal Deaths	Number	Rate
Total	728	9.2	Total	472	6.0
White	424	7.0	White	246	4.1
Black	291	18.0	Black	217	13.4

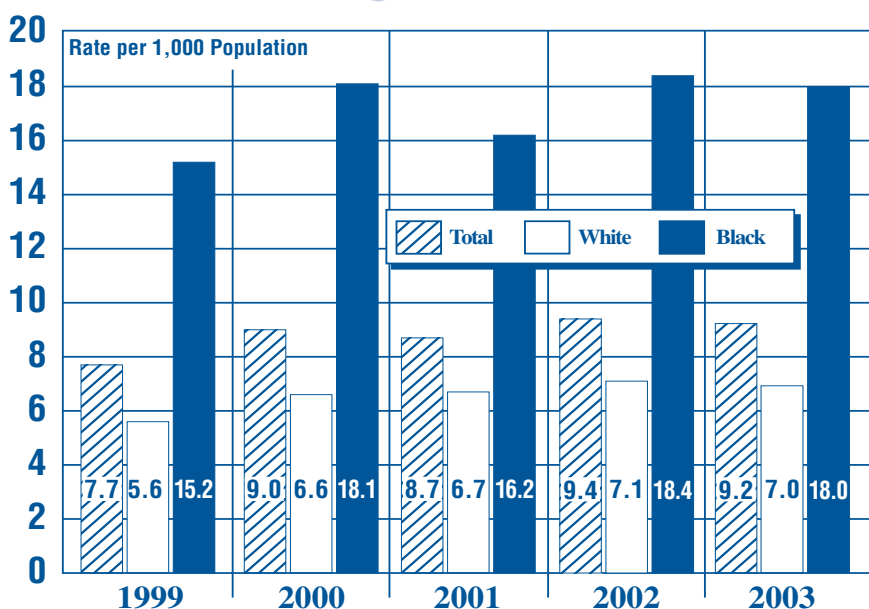
Infant Death - A death of a live-born infant under one year of age.
Neonatal Death - A death of a live-born infant under 28 days of age.

Tennessee had 728 infant deaths in 2003. The total infant mortality rate per 1,000 live births was 9.2. The number of white infant deaths was 424 with a mortality rate of 7.0. The number of black infant deaths was 291, and the rate was 18.0 per 1,000 live births. The total number of neonatal deaths was 472 with a rate of 6.0. There were 246 white and 217 black neonatal deaths with corresponding rates of 4.1 and 13.4 per 1,000 live births.

Infant Death Rates by Race, Resident Data Tennessee, 1999-2003

In 2003, Tennessee's infant death rates by race declined from those of the previous year. While the rates fluctuated for the five-year period 1999-2003, the black rate remained highest for each year. The 2003 black infant death rate of 18.0 increased 18.4 percent over the 1999 rate of 15.2 per 1,000 live births.

Early prenatal care and educating mothers on the importance of proper nutrition and good health habits, and informative programs like the "Back to Sleep" campaign, have been important factors in the ongoing effort to decrease infant deaths. While these deaths overall have declined since the early 1900's, infant death reduction will continue to be a high priority for health professionals.



Tennessee's violent death data primarily focuses on assault (homicide) and intentional self-harm (suicide) deaths. Also provided is information on firearm deaths, which includes accidental deaths as well as assault and intentional self-harm deaths due to firearm use. In addition to the 2003 violent deaths, there were four deaths from legal intervention.

- During 2003, there were 435 assault deaths among residents of Tennessee. The corresponding death rate was 7.4 per 100,000 population.
- In 2003, 221 or 50.8 percent of the total assault deaths occurred among the black population.
- Of the total 2003 assault deaths, 74.3 percent were males while 41.8 percent of the total were black males.
- The number of intentional self-harm deaths for 2003 was 760 with a rate of 13.0 per 100,000 population.
- The white population accounted for 698 or 91.8 percent of the total 2003 intentional self-harm deaths.
- Of the total 2003 intentional self-harm deaths, 78.3 percent were males while 71.3 percent of the total were white males.
- In 2003, intentional self-harm was the ninth leading cause of death in Tennessee.

The 2003 assault death rate for blacks was 22.5 per 100,000 population. This rate was 5.1 times the rate of 4.4 for

whites. The 2003 intentional self-harm rate for whites was 14.6. This rate was 2.7 times the rate of 5.5 for blacks.

Number of Assault and Intentional Self-Harm Deaths by Race and Gender, with Rates per 100,000 Population Resident Data, Tennessee, 2003

	Assault		Intentional Self-harm	
	Number	Rate	Number	Rate
Total	435	7.4	760	13.0
White	211	4.4	698	14.6
White Male	138	5.9	542	23.2
White Female	73	3.0	156	6.4
Black	221	22.5	54	5.5
Black Male	182	39.4	49	10.6
Black Female	39	7.5	5	1.0
Other Races	3	3.2	8	8.5
Other Male	3	6.5	4	8.6
Other Female	-	-	4	8.4

In 2003, there were 21 assault deaths among children under 15 years of age. The highest rate for assault deaths occurred to persons 20-24 years, while the highest rate for intentional self-harm was for persons 30-34 years of age.

Number of Assault and Intentional Self-Harm Deaths by Age with Rates per 100,000 Population, Resident Data, Tennessee, 2003

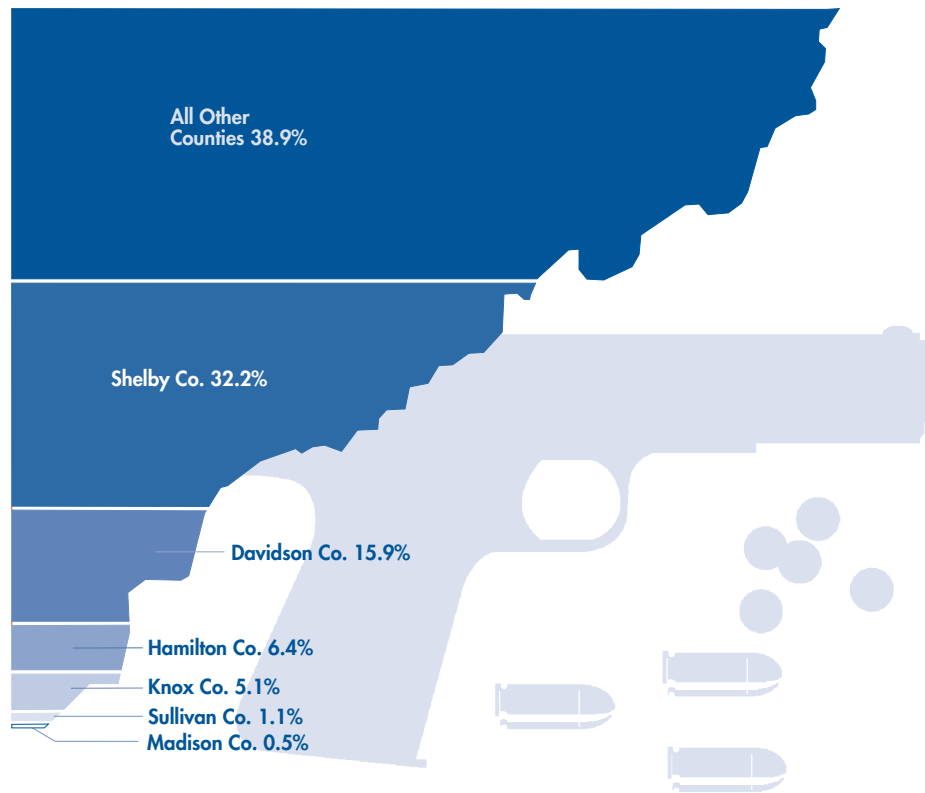
Age Groups	Assault		Intentional Self-harm	
	Number	Rate	Number	Rate
Total	435	7.4	760	13.0
Under 1*	8	0.1	-	-
1-9 years	10	1.4	-	-
10-14 years	3	0.7	6	1.5
15-19 years	29	7.2	26	6.4
20-24 years	80	20.2	54	13.6
25-29 years	55	13.8	63	15.8
30-34 years	56	13.5	81	19.6
35-44 years	85	9.6	167	18.8
45-54 years	51	6.1	157	18.9
55-64 years	29	4.9	94	15.8
65-74 years	10	2.5	66	16.8
75-84 years	15	6.1	33	13.5
85+ years	4	4.6	13	14.8

*Rate for deaths under one are per 1,000 births. All other age groups are per 100,000 population.

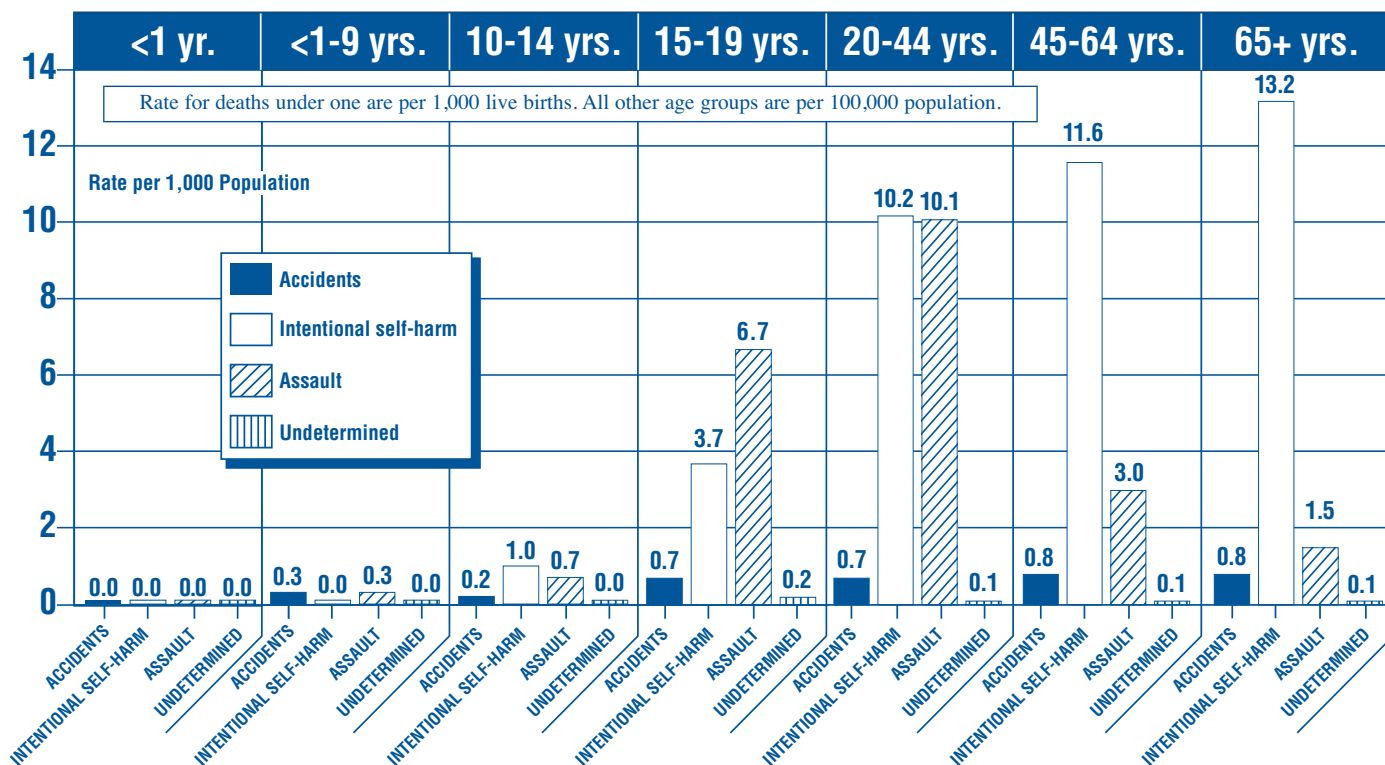
In 2003, Tennessee's assault mortality by county of residence reveals the highest numbers for residents of Shelby and Davidson Counties. These two counties accounted for 48.0 percent of the state's total number of assault deaths, with almost one-third of the total assault deaths occurring in Shelby County.

In 2003, 4 children under the age of 10 years died from firearm injuries. Of these 4 deaths, 2 were accidental deaths, and 2 were assault deaths. While accidental death is the leading cause of death for young children, violence toward children and youth is of increasing concern. For children ages 10-14, there were 8 firearm deaths. Of these deaths, 1 was accidental, 4 were intentional self-harm and 3 were assault deaths. For the age group 15-19, assault was the leading cause of firearm deaths. The intentional self-harm rate for firearm injury was highest for all age groups 20 years and older.

Tennessee's Assault Deaths by Metropolitan and Rural Counties, Resident Data, 2003



Firearm Death Rates, by Age Group, Resident Data, Tennessee, 2003



Deaths attributed to firearm injury are classified according to ICD-10 codes as follows: accident codes W32-W34; intentional self-harm codes X72-X74; assault codes X93-X95, and undetermined whether accidentally or purposely inflicted, codes Y22-Y24.

Tennessee had 614 firearm deaths for white residents and 214 for black residents in 2003. The firearm death rate for the white population was 12.9 per 100,000 population. The rate for blacks of 21.8 was 1.7 times greater than the white rate. The intentional self-harm firearm mortality rate for whites was 2.4 times greater than the rate for blacks, while the assault firearm death rate for blacks was 6.7 times greater than the white rate. The accidental firearm death rate for whites was 8 times higher than the black rate. The black rate (0.2) for undetermined cause was twice the rate for whites.

Number of Firearm Deaths by Race and Gender, with Rates per 100,000 Population, Resident Data Tennessee, 2003

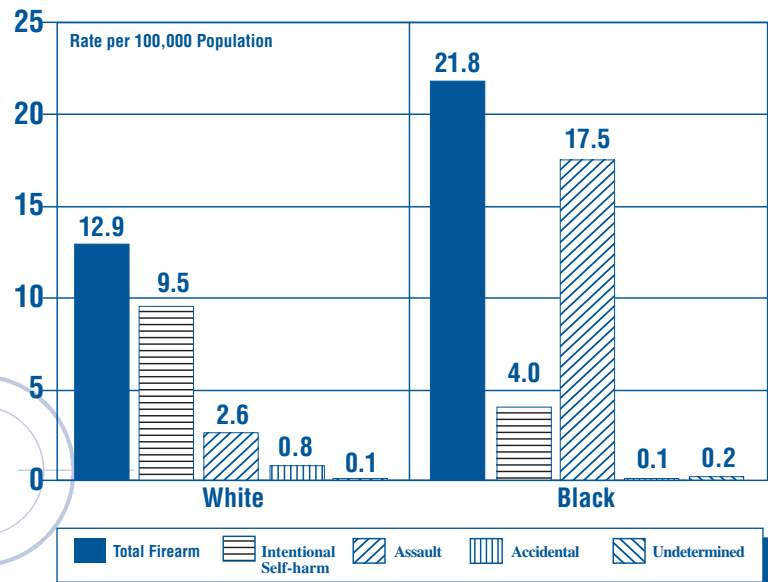
	Number	Rate
Total	832	14.2
White	614	12.9
White Male	497	21.2
White Female	117	4.8
Black	214	21.8
Black Male	190	41.1
Black Female	24	4.6
Other Races	4	4.3
Other Male	2	4.3
Other Female	2	4.2

For 2003, firearm death rates by gender show that black males had the highest rate (41.1) per 100,000 population. The lowest firearm mortality rate of 4.2 was for other females.

Violent deaths have become an important health issue as it appears that violent behavior has grown to be the course of action for conflict, emotional distress, and criminal activity; but health programs alone are not sufficient to deal with this complicated problem. Implementing prevention programs involves the cooperative efforts of public health, mental health, criminal justice, social services, and professional education. Reducing these preventable deaths is imperative in the goal toward increased longevity of life.

More detailed county level mortality data may be obtained by contacting the Tennessee Department of Health, Division of Health Statistics or at our website.

Firearm Death Rates, by Race Resident Data, Tennessee 2003



Tennessee's total death rates for diseases of heart and malignant neoplasms (cancer) decreased from 1999 to 2003. For the five-year period, the mortality rate for diseases of heart decreased 7.9 percent. The decrease for the cancer rate was 0.5 percent for the same period. While heart disease continues to be the leading cause of death for the total population, the

cancer death rate (191.3) for the population under 85 years of age exceeded that of heart disease (189.9) for the same age cohort in 2003. This relationship is similar to comparative data at the national level. Smoking, obesity, poor diet, and lack of exercise are all contributing factors to both heart disease and cancer deaths.

Number Deaths for Diseases of Heart and Malignant Neoplasms By Age Group, With Rates Per 100,000 Population, Resident Data Tennessee, 1999-2003

Total			Under 85 Years		85 Years and Older	
Year	Number	Rate	Number	Rate	Number	Rate
Diseases of Heart						
1999	16,191	295.3	11,232	208.0	4,958	5974.1
2000	16,128	283.5	11,230	200.3	4,897	6011.2
2001	15,679	273.3	10,800	191.1	4,879	5845.7
2002	16,205	280.0	11,202	196.5	5,002	5847.1
2003	15,891	272.1	10,925	189.9	4,966	5662.8
Malignant Neoplasms						
1999	11,887	216.8	10,456	193.6	1,429	1721.9
2000	12,309	216.4	10,839	193.3	1,470	1804.5
2001	12,228	213.2	10,742	190.0	1,486	1780.4
2002	12,506	216.1	10,968	192.4	1,538	1797.9
2003	12,595	215.7	11,007	191.3	1,588	1810.8

NOTE: The population estimates for Tennessee used to calculate the rates in this report were based on figures prepared from the 2000 census on August, 2003 by the Division of Health Statistics.

These revised population figures may result in rates that differ from those previously published.

2003
Total Population
5,840,260

2003
White Population
4,764,790

2003
Black Population
931,422

Please visit the Division of Health Statistics and Health Information Tennessee (HIT) pages on the Tennessee Department of Health website by selecting Statistics and Data at:
tennessee.gov/health

Report of Tennessee Deaths 2003 was published by the Tennessee Department of Health, Division of Health Statistics
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Nashville, Tennessee, 37247-5262

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Tennessee Department of Health. Authorization No. 343622, 425 copies. This public document was promulgated at a cost of \$1.23 a copy. (04/05)

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